IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Gregory R. Hintermeister

Serial No.:   10/767,044

Filed: January 29, 2004

For: MULTI-IMAGE FILE APPARATUS AND METHOD

Group Art Unit: 2176

Confirmation No.:   4831

APPEAL BRIEF IN SUPPORT OF APPEAL FROM THE PRIMARY EXAMINER TO THE BOARD OF APPEALS

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
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Sir:

Appellant hereby submits an appeal brief in support of its appeal to the Board of Appeals from the decision dated December 30, 2009, of the Primary Examiner finally rejecting claims 22-32 and 34-43.

The appeal brief fee of $540.00 is:

☐   Enclosed.

☒   Not required. (Fee paid in prior appeal.)

☐   Charged to Deposit Account No. **09-0465**.

1. Real Party in Interest

The real party in interest is International Business Machines, Inc., the assignee of the above identified application.

2. Related Appeals and Interferences

There are no related appeals or interferences for the above-identified application.

3. Status of Claims

Claims 22-32 and 34-43 are currently pending. The pending claims are presented in Section 8.

Claims 1-21 and 33 have been canceled previously.

In the Office Action mailed December 30, 2009, the Examiner issued final rejections of: (i) claims 30-32 and 34 under Section 112 as being unclear whether Appellant recited a product or method; (ii) claims 30-32 and 34 under Section 101 as directed to non-statutory subject matter; (iii) claims 22-25 and 29-31 under Section 102(e) as anticipated by Wan (U.S. 7,461,168); (iv) rejected claims 26-27 under Section 103(a) as unpatentable over Wan in view of Miller (US 2005/0185055); and (iv) claims 28, 32, and 34-43 under Section 103 as unpatentable over Wan in view of Munroe 2002/0089549; (v) claims 22, 28-32, and 34 under Section 103(a) as unpatentable over Munroe in view of Wan; (vi) claims 26-27 under Section 103(a) as unpatentable over Munro in view of Wan and Miller; (vii) claims 23-25 under Section 103(a) as unpatentable over Munro in view of wan and Tucker (U.S. 2004/0049598).

Appellant appeals from the final rejections of claims 22-32 and 34-43.

4. Status of Amendments

Appellant last amended the claims in its Response filed on September 21, 2009. These Amendments were entered in the Office Action mailed December 30, 2009.

5. Summary of Claimed Subject Matter

Claim 22 is directed at a method of displaying a web page. This method comprises receiving a multi-image file via a network interface, receiving a web page containing a markup language tag via the network interface, and selectively displaying only the specified first subset of images from the multi-image file on a display unit. *Figs. 3A-3B; pg. 3, lines 4-12.* The claim further states that the multi-image file consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display and that the markup language tag comprises a code specifying a first subset of the images in the multi-image file that should be displayed. *E.g., Figs. 5-7; pg. 5, lines 1-23; pg. 7, line 6 – pg. 9, line 1.*

Claim 30 is directed at a computer program product comprising a computer program that, when executed on a processor, causes the processor to perform a method for rendering images in a computer system, (b) computer readable storage media bearing the program. *Pg. 11, lines 14-28.* The claim further states that this method comprises receiving a multi-image file via a network interface, selecting a first subset of the images in the multi-image file for display, and displaying the selected images on a display unit. *E.g., figs. 3A-3B; pg. 3, lines 21-25.* The multi-image file in this claim consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display. *E.g., Figs. 5-7; pg. 5, lines 1-23; pg. 7, line 6 – pg. 9, line 1.*

Claim 35 is directed at a method of generating a mouse-over feedback effect in a web page. *E.g., pg 6, lines 6-17.* The method comprises: receiving a multi-image file via a network interface, wherein the multi-image file consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display, *pg. 5, lines 1-13;* identifying a first markup language tag specifying the multi-image file, the first markup language tag comprising a first code identifying the multi-image file and one or more second codes specifying a first subset of images in the multi-image file for display, *pg. 5, lines 14-23;* parsing the multi-image file to identify the one or more images specified by the second codes, *E.g., Figs. 5-7; pg. 5, lines 1-23; pg. 7, line 6 – pg. 9, line 1;* simultaneously displaying on a display unit the one or more images specified by the

second codes, *Id.;* and detecting user interaction with at least one of the displayed images via an I/O interface, *Id.* The claim further recites, responsive to the detecting, identifying a second markup language tag specifying the multi-image file, the second markup language tag comprising the first code and one or more third codes specifying a second subset of images in the multi-image file, *Id.;* parsing the multi-image file to identify one or more images specified by the third codes, *Id.;* and simultaneously displaying the one or more images specified by the third codes on the display unit, *Id.*

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6. Grounds of Rejection to be Reviewed on Appeal

I. Whether claims 30-32 and 34 are indefinite under Section 112.

II. Whether claims 30-32 and 34 satisfy Section § 101.

III. Whether claims 22-32 and 34-43 are anticipated or made obvious by various combinations of Wan, Miller, Munroe, and Tucker. More specifically, whether any of the references teaches or suggests a "multi-image . . . wherein the multi-image file consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display."

IV. Whether claims 35-43 are made obvious by Wan in view of Munroe. More specifically, whether either reference teaches or suggests "parsing the [received] multi-image file to identify the one or more images specified by the second codes."

7. Argument

I. Rejections under Section 112

The Examiner rejected claims 30-32 and 34 under Section 112 because the "claims recite both a product and method steps which makes the claim ambiguous."

Appellant respectfully submits that the Examiner is misreading the claim language. Claim 30 is a standard *Beauregard* or 'computer readable media' format claim. *In re Beauregard, 35 USPQ2d 1383 (Fed. Cir. 1995)*. It recites two elements: "a computer program that, when executed on a processor, causes the processor to perform a method for rendering images in a computer system" and a "computer readable storage media bearing the program." Both elements are 'articles of manufacture.' As typical for *Beauregard*-format claims, the claim goes on to further specify that the program on the computer readable storage media comprises three specific acts, namely "receiving a multi-image file via a network interface, the multi-image file consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display," "selecting a first subset of the images in the multi-image file for display," and "displaying the selected images on a display unit." Appellant notes that the USPTO has allowed thousands of patents with this basic template. E.g., http://www.1201tuesday.com/1201_tuesday/2009/09/happy-birthday-beauregard.html

II. Rejections Under Section 101

The Examiner rejected claims 30-32 and 34 under Section 101. The Examiner alleges that "'computer-readable storage media' . . . has been defined by Applicant on page 11 of the Specification as 'signal bearing media' which includes waves and signals."

Appellant respectfully submits that the Examiner is misreading its Specification; page 11 describes these terms in the exact opposite way. More specifically, page 11 states the invention is capable of being distributed as program product on a variety of "signal bearing media." *Pg. 11, lines 15-18.* "Signal bearing media," in turn, can

include: (i) "non-writable storage media," *Id. at lines 19-20;* (ii) "writable storage media," *Id. at lines 21-22;* or (iii) "communications medium," *Id. at lines 22-25.* That is, Appellant's specification describes the claimed "storage media" as a subset of "signal bearing media," and not as the superset urged by the Examiner. Moreover, Appellant respectfully submits that 'waves and signals' cannot properly be ascribed to the term 'storage media' because the Specification includes a different category for 'communications media.'

Because Appellant's use of "storage media" specifically excludes "communication media," Appellant respectfully submits that the Examiner's current rejection is improper.

III. Rejections under Section 102 and 103:

The Examiner bears the initial burden of establishing a prima facie case of obviousness. *MPEP § 2141.* Establishing a prima facie case of obviousness begins with first resolving the factual inquiries of *Graham v. John Deere Co.* 383 U.S. 1 (1966). The factual inquiries are as follows:

    (A) determining the scope and content of the prior art;

    (B) ascertaining the differences between the claimed invention and the prior art;

    (C) resolving the level of ordinary skill in the art; and

    (D) considering any objective indicia of nonobviousness.

Once the Graham factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art. *Id.* Similarly, a reference can only anticipate a claim if that reference teaches or suggest each and every claim element. *MPEP § 2131.* Taken together, the claimed inventions are not anticipated or obvious if none of the references teaches or suggests a claim element.

A. Claims 22-32 and 34-43: None of the references teach or suggest a "multi-image . . . wherein the multi-image file consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display"

A brief overview of Appellant's invention in light of existing art will be helpful in appreciating the issues herein. As described in the Background section, many web sites contain a graphical navigation interface, such as a menu pane. Typically, menu panes contain a number of graphical elements representing potential choices. Each graphical element, in turn, consists of a separate image, usually encoded according to the GIF or JPEG standards. Although each image requires a relatively small amount of storage space, a typical menu pane comprises dozens of individual graphical elements. The shear volume of these images creates many problems. For example, the tracking, maintaining, and naming of these files imposes significant administrative burdens on the web site developer. The volume of images also increases the number of server connections and network traffic because each individual file must be downloaded from the web server computer.

As further explained in the Background section, these problems are exasperated when web site developers try to make their graphical navigation interfaces dynamic. For example, one common technique used to generate dynamic interfaces uses multiple versions of each graphical element, with each version having small variations in color and/or shape. These images can be linked together with scripting engines to produce a controlled animation effect called a 'rollover.' Thus, this techniques requires the use of at least three separate image files for each element: one image showing the initial menu item, a second image for display when the end user passes a mouse curser over the menu item; and a third image to the product submenu items. This, in turn, means that for a simple interface with five choices, the web developer will need to manage fifteen separate image files. Those skilled in the art will appreciate that this complexity is further magnified by each new interface element; the complex interfaces at a major web sites can often require hundreds or even thousands of small image files, every one of which must be created, tracked, maintained, and transmitted.

The present invention provides a more-robust, more-flexible way to manage this dynamic content by introducing "multi-image files." As described and claimed, these multi-image files comprise a single file containing a primary image and a plurality of secondary image adapted for cooperative display. Thus, a browser implementing the present invention only has to retrieve one file to present a dynamic interface effect. The present invention also includes a mark-up language tag that allows the web page designer to specify, directly and via script, which picture from the file to display.

The Specification explains that the claimed multi-image files offer numerous advantages over conventional image delivery formats. For example, the ability of multi-images files to allow many graphical elements to be stored in a single file reduces the number of server connections needed to download a graphically rich site and increases apparent speed. Another advantage is that web page developers can use scripting languages, such as JavaScript, to create animations and overlay multiple images from a single multi-image file more easily and more robustly than possible using conventional animated-GIF techniques because the multi-image files of the present invention eliminate overhead associated with preloading and referencing multiple images. Yet another feature and advantage is that the multi-image files may contain different size and shaped images. This allows the web page designer to identify and segregate those portions that contain dynamic elements from those portions that are static. This feature may be particularly desirable on devices with limited processing power and/or storage.

Turning now to the references:

1. Munro

Munro generally describes a browser plug-in that displays multiple bitmap images. Significantly, however, in order to display those images, the plug-in has to individually retrieve each image from the server. *E.g., Munro,* ¶ *0008* (distinguishing the prior art because "none of these applications allow for separate images, each image having an independent data file, to be concurrently displayed"); ¶ *0045* (explaining that "in this example, the multiple image viewer only had to download two data files . . . ."); *and* ¶ *0050* (stating that "the compressed images are stored in a file structure")(emphasis added). The present invention, in contrast, contains multiple, independent images in a single file. In this way, a browser implementing the present invention receives all the images necessary to present a dynamic effect in one package.

The Examiner cites paragraph [0008] as teaching the claimed multi-image files. Appellant respectfully submits that the Examiner's interpretation of this paragraph is incorrect; the cited section of Munro describes a single image file that is rendered as a mosaic of multiple pictures, and not a single file containing multiple images. As previously noted, the Examiner's cited paragraph itself specifically states that the advantage Munroe is that allows "for two separate images, *each image having an independent data file,* to be concurrently displayed and manipulated in the same window")(emphasis added). The Examiner also cites paragraphs [0049]-[0050], which add that the images are stored on the server such that the server can generate multiple resolutions upon request. In each case, however, the browser plug-in has to individually receive each of the different images. *Munroe,* ¶ *0049* ("If . . . the user zooms in on an image above the predetermined setting, then the multiple-image viewer would request the next higher resolution. . . .") Put another way, Munroe merely teaches that the server can transcode an image into multiple resolutions. However, it is silent about putting multiple images into a single, multi-image file.

The claims also specifically require that the images in the multi-image file be "adapted for cooperative display." That is, as described in the Specification:

> the secondary images 204-206 may be displayed together with the primary image 202 or another secondary image 204-206 to form a combined image, displayed individually in place of the primary image 202, or some combination thereof. That is, the primary image 202 and secondary images 204-206 may be displayed together as complementary layers, as alternative versions of the same image, or a combination of cooperative and alternative elements.

Specification, page 5, lines 5- 10. Even assuming the different resolutions in Munroe constitute multiple, independent images, those resolutions are certainly not adapted for cooperative display, nor constitute complementary layers, nor overlay the primary image. Instead, the browser plug-in described in Munro will either display a high resolution image or a low resolution image, but not both at once.

2. *Miller*

Miller also fails to teach these elements. Instead, Miller is directed at a method of customizing a digital camera to accommodate user preferences, such as color background, icons and names. However, Miller does not describe how the resulting images will be stored and transmitted, other than brief references to the PCMCIA, compact flash, memory stick, and JPEG standards.

3. *Tucker*

Tucker also fails to teach these elements. Instead, Tucker directed at a content delivery system that utilizes editing, caching and compressing to speed the delivery of content from a network, such as the Internet, while conserving bandwidth usage. Although Tucker discusses transcoding files, it does not teach or suggest transcoding into a file containing a plurality of images, much less images adapted for cooperative display.

4.   Wan

Wan also fails to teach these elements. Instead, Wan is directed at method for addressing specific portions of a monolithic audio/visual file. *Wan, col. 6, lines 43-68.* Using this method, a user can download a desired time block (e.g., minutes 15-30), rather than the whole A/V file. *Id. See also Wan, col. 1, lines 35-45* (explaining that the problem overcome is that "a Web user . . . must, in many cases, down-load an inconveniently large and cumbersome amount of information in order to locate useful information"). That is, Wan is directed at downloading a single file – and specifically a portion thereof – and not the claimed "multi-image file [that] consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display." *E.g., Wan, col. 6, lines 56-65 (explaining that its "model thereby enables systematic and rapid addressing of arbitrary content fragments on a time block basis . . . Using the described representation, a user is able, for example, to select an arbitrary fragment of audio content on the CD ROM. . . .")*

The Examiner cites Wan, figs 12-13, specifically the <ImageGroup id> as teaching the claimed multi-image files. Appellant respectfully traverses. The <ImageGroup id> in Figs. 12-13 just identifies a particular segment for download. In the "prior art" embodiment in Fig. 12, the user must download the entire A/V file. *Wan, col. 17, line 65 – col. 18, line 3.* In Fig. 13, the user only needs to download the desired portion. *Wan, col. 18, lines 4-20.* In either case, the user in Wan downloads a single A/V file or segment.

B.   Claims 35-43: Neither cited reference teaches or suggests "parsing the [received] multi-image file to identify the one or more images specified by the second codes."

As previously explained, Wan is directed at a "juke box" for addressing specific portions of a monolithic audio/visual file. *Wan, col. 5, line 65 – col. 6, line 4; col. 6,*

lines 43-68. Using this method, a user can download a desired time block (e.g., minutes 15-30), rather than the whole A/V file. As a result of this focus, even if one were to assume that Wan teaches the claimed multi-image files, the wrong entity is doing the parsing.

More specifically, claim 35 specifically recites "receiving a multi-image file via a network interface" and then "parsing the multi-image file to identify the one or more images specified by the second codes." Standard antecedent-basis rules thus require that parsing occur on the 'receiving' device, and not on the 'sending' device. In Wan, however, any parsing of the audio/visual files occurs at the sending device. That is, the browser on the receiver only processes a standard XML document for links to fragments, as opposed to parsing the received file for "one or more images specified by the second codes" in that file. *Wan, col. 18, lines 4-20.*

For completeness, Appellant respectfully submits that Munro also fails to teach or suggest this element. Appellant notes that the Examiner only cites Munro against the detecting user interaction element, and thus, does not appear to contest this assertion. *Office Action mailed December 30, 2009 at pg. 10-12.*

8. Claims Appendix

22.   A computer-implemented method of displaying a web page, comprising:

    receiving a multi-image file via a network interface, wherein the multi-image file consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display;

    receiving a web page containing a markup language tag via the network interface, the markup language tag comprising a code specifying a first subset of the images in the multi-image file that should be displayed; and

    selectively displaying only the specified first subset of images from the multi-image file on a display unit.

23.   The method of claim 22, further comprising parsing the multi-image file for an information header, the information header containing an image name for each image in the multi-image file.

24.   The method of claim 23, wherein the information header further comprises a primary image indicator.

25.   The method of claim 24, wherein the information header further comprises an image location in the multi-image file for each image.

26.   The method of claim 25, further comprising, in response to an event, displaying the web page with a second subset of the plurality of secondary images.

27. The method of claim 26, wherein the event comprises a mouse-over event.

28. The method of claim 22, wherein the first subset images cooperate to comprise a menu element.

29. The method of claim 22, wherein the markup language tag comprises an HTML code.

30. A computer program product, comprising:

(a) a computer program that, when executed on a processor, causes the processor to perform a method for rendering images in a computer system, the method comprising:

receiving a multi-image file via a network interface, the multi-image file consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display;

selecting a first subset of the images in the multi-image file for display; and

displaying the selected images on a display unit; and

(b) computer readable storage media bearing the program.

31. The computer program product of claim 30, wherein the program comprises a web browser.

32. The computer program product of claim 30, wherein the primary image and at least one of the plurality of secondary images comprise complementary layers.

34.   The computer program product of claim 30, wherein at least one of the plurality of secondary images overlays the primary image.

35.   A method of generating a mouse-over feedback effect in a web page, comprising:

receiving a multi-image file via a network interface, wherein the multi-image file consists of a single data file comprising a primary image and a plurality of secondary images adapted for cooperative display;

identifying a first markup language tag specifying the multi-image file, the first markup language tag comprising a first code identifying the multi-image file and one or more second codes specifying a first subset of images in the multi-image file for display;

parsing the multi-image file to identify the one or more images specified by the second codes;

simultaneously displaying on a display unit the one or more images specified by the second codes;

detecting user interaction with at least one of the displayed images via an I/O interface, and responsive to the detecting:

identifying a second markup language tag specifying the multi-image file, the second markup language tag comprising the first code and one or more third codes specifying a second subset of images in the multi-image file;

parsing the multi-image file to identify one or more images specified by the third codes; and

simultaneously displaying the one or more images specified by the third codes on the display unit.

36.   The method of claim 35, wherein the images specified by the one or more second codes comprise complementary layers.

37.   The method of claim 35, wherein a first of the images specified by the one or more second codes overlays a second of the images specified by the one or more second codes.

38.   The method of claim 35, wherein the multi-image file further comprises an image descriptor for each of the plurality of images.

39.   The method of claim 38, wherein parsing the multi-image file to identify the one or more images specified by the second codes comprises comparing the second codes to the image descriptors.

40.   The method of claim 39, further comprising:

        receiving an image file from a web server;

        detecting that the received image file is a conventional image file, wherein the conventional image file consists of a single file comprising a single image; and

        responsive to the detecting, displaying the web page with the single image.

41.   The method of claim 40, wherein the detecting comprises parsing the received image file for image descriptors.

42. The method of claim 41, wherein the multi-image file further comprises a primary image specification.

43. The method of claim 42, further comprising:

failing to identify an image specified by the one or more second codes; and

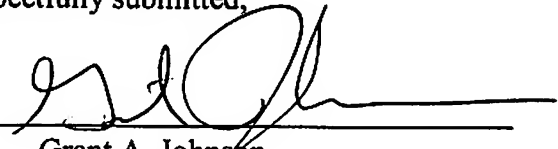responsive to the failure, displaying the primary image.

9. Evidence Appendix

n/a

10. Related Proceedings Appendix

Appellant previously appealed this Application. This Appeal was voluntarily withdrawn because the claims were incorrectly listed in the Brief.

For each of the foregoing reasons, Appellant submits that the Examiner's final rejections of claims 22-32 and 34-43 were erroneous, and respectfully requests reversal of these decisions.

Date: June 1, 2010

Respectfully submitted,

By _____

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